

DOCUMENT-  
IDENTIFIER: US 20030059009 A1

TITLE: Modular multi-media communication management system with context dependent  
multi-media help functionality

format (.wav, .mp3, etc...)

Pre-Grant Publication (PGPub) Document Number - PGNR (1):

20030059009

Pre-Grant Publication Document Identifier - DID (1):

US 20030059009 A1

Summary of Invention Paragraph - BSTX (7):

[0006] A problem is that neither of the above described systems are adequate for providing help information to various subscribers to a complex multi-media communications management system wherein the subscriber stations and devices utilized by each of a plurality of subscribers have differing permutations of audio and display interface capabilities. What is needed is a modular and configurable multi media communication management system that not only allows for operator selection of modules and subscriber interface configurations tailored to the subscriber's communication needs, but also allows for delivery of operator help content that is relevant to the subscriber devices operational state and delivered in a multi media format that is compatible with the subscriber device's interface configuration.

Detail Description Paragraph - DETX (37):

[0059] Referring to FIG. 2, the control unit 12 further provides context dependent help information to each communication space station 24 in response to subscriber activation of the help button 106 on the surface of the communication space station 24. The help content is delivered to a communication space station 24 in a format compatible with the subscriber interface configuration of such communication space station 24.

Detail Description Paragraph - DETX (38):

[0060] For example, communication space station 24a includes a subscriber voice interface 130 (FIG. 4) and does not include a display. As such, help content is delivered to communication space station 24a by the control unit 12 in a voice only format (possibly a .wav file, a .mp3 file, or similar).

Detail Description Paragraph - DETX (41):

[0063] In the above example, display 72 is assumed to be a low resolution display without the ability to display full motion vide and display 90 on the subscriber device 50 is assumed to have the ability to display full motion video, it is also envisioned that the display 72 on the communication space station 24 would have capability of displaying full motion video and that display 90 on the subscriber device may not have full motion video capability. In which case, the format of the help content would be selected accordingly.

Detail Description Paragraph - DETX (43):

[0065] The help file database 231 includes a plurality of help content files 233 which are shown organized in a matrix format for purposes of illustration. Each column of the help file database 231 represents one of a plurality of operational states in which each

communication space station 24 may be operating under control of the session control server 230. Each file within a column includes help content file(s) related to the particular operational state. As such, when a subscriber activates the help button 106 on a communication space station 24, the help content delivered by the control unit 12 to the communication space station 24 will be content files that are located in the column that corresponds to the operational state of the communication space station 24 when the subscriber activated the help button 106.

**Detail Description Paragraph - DETX (44):**

[0066] Each row of the help file database 231 represents a file format for the help content. In particular, row 235a includes help content stored as a voice file that includes content useful to the subscriber when heard without reference to any display content. Row 235b includes the help content for each column stored as a sequence of still image files, a voice file that is related and references content of the image files, and a timing file that times the display of the image files to synchronize with the voice file. Row 235c includes the help content for each column stored in a full motion video file with corresponding synchronized voice content that relates to the video content and references the video content. While it is envisioned that both the full motion video and its corresponding audio are stored in a single file, it is possible for the two to be stored in separate files.

**Detail Description Paragraph - DETX (61):**

[0083] The wide area network communication space station client application 198 may receive messages from the platform unit 52 which may be both multi-media communication for communication over the wide area network service provider medium or multi-media communication management information for display on the graphic display 90. Each message comprises a plurality of tagged messages wherein the tag identifies the contents of the message. After receipt of the tagged messages, the wide area network communication space station client application 198 identifies whether the message is for communication with the wide area network service provider medium or whether it is multi-media communication management information message for display, the wide area network communication space station client application 198 builds a document to display the communication management information represented by the tagged content messages in accordance with display layout control messages that are compatible with the size, resolution, and color depth of the touch panel graphic display 90. The display document is then displayed on the touch panel graphic display 90. Alternatively, if the message is for communication with the wide area network service provider medium, the controller 180 reformats the message to a format compatible with wide area network service provider medium transmission standards and transmits the message using the wide area network RF circuit 182.

**Detail Description Paragraph - DETX (76):**

[0098] In response to event 310 that represents subscriber activation of a help control such as the help button 106 while in the main menu state, the session control server 230 selects help files 233 (FIG. 2) from the database 231 that include help content (e.g. column) content that is related to the operating state of the communication space station 24 and is in a format (e.g. row) that corresponds to the subscriber interface of the communication space station 24 as determined during steps associated with event 300 of FIG. 9a.

**Detail Description Paragraph - DETX (78):**

[0100] More specifically (with respect to selecting a format, the session control server utilizes the subscriber interface configuration information provided during execution of steps related to event 300 (initial logon) to determine whether the communication space station 24 is configured for an audio interface only, an audio interface with still image capabilities on a display screen, or an audio interface with full motion video display capabilities. The session control server then selects a file 233 that includes the content and that is either audio only, still image graphics with synchronized audio that references and explains the still image graphics, or full motion video with synchronized audio that

references and explains the video images to match the subscriber interface capabilities of the communication space station 24.

**Detail Description Paragraph - DETX (86) :**

[0108] In response to event 334 the session control server 230 sends the contents of the selected audio message to the communication space station 24 and sends control messages to instruct the communication space station 24 to output the audio content through the voice interface 130 (FIG. 4). In response to event 336 the session control server 230 provides messages representing the message display content and the message display layout control that are compatible with parameters of the graphic display 90 on the subscriber device 50. In response to event 338, the session control server 230 formats the selected message into a printer compatible file and sends the print file to a printer coupled to the network 22.

**Detail Description Paragraph - DETX (87) :**

[0109] It should be appreciated that the systems and methods of the present invention provide for the communication and control of multi-media messages by a central control unit and for the provision of context dependent help services in an audio/visual format that is optimized for the audio/visual subscriber interface configuration of a particular communication space station served by the central control unit.

**Claims Text - CLTX (2) :**

1. A multi-media communication management system for operation with a plurality of subscriber stations, at least one of which is a configurable subscriber station that includes a subscriber interface selected from a subscriber voice interface, a graphic display and a subscriber voice interface, a high resolution full motion display and a subscriber voice interface, the multi-media communication management system comprising: a network communication circuit for multi-media communication with said plurality of subscriber stations; a session control circuit for establishing a communication session with each subscriber station through the network communication circuit comprising: a subscriber communication state manager for communicating control messages to a configurable subscriber station for controlling operational states of said configurable subscriber station and for receiving a help function request from said configurable subscriber station; means for identifying the subscriber interface of said configurable subscriber station; and means, responsive to said help function request, for providing help information to said configurable subscriber station that is related to the operational state of said subscriber station and is in a multimedia format compliant with the subscriber interface of the configurable subscriber station.

**Claims Text - CLTX (3) :**

2. The multi-media communication management system of claim 1, wherein the means for providing help information comprises: means for selecting a help content file from a database of help content files, said selected help content file being associated with the operational state of said configurable subscriber station and in a file format that can be output through the subscriber interface of the configurable subscriber station; and means for sending a content message, including at least a portion of the help content file, to said configurable subscriber station; and means for sending a control message to said configurable subscriber station that instructs said configurable subscriber station to output said at least a portion of the help content file contained in said content message through the subscriber interface.

**Claims Text - CLTX (12) :**

11. A method of providing context dependent help services to a configurable subscriber station that includes a subscriber interface selected from a subscriber voice interface, a graphic display and subscriber voice interface, a high resolution full motion display and subscriber voice interface, the method comprising: communicating control messages to the configurable subscriber station over a network communication circuit for controlling operational states of the configurable subscriber station; receiving a help function request from the configurable subscriber station over the network communication circuit; identifying

the subscriber interface of the configurable subscriber station; providing, in response to a help function request, help information to the configurable subscriber station that is related to the operational state of the configurable subscriber station and is in a multimedia format compliant with the subscriber interface of the configurable subscriber station.

**Claims Text - CLTX (13):**

12. The method of providing context dependent help services to a configurable subscriber station of claim 11, wherein the step of providing help information comprises: selecting a help content file from a database of help content files, said selected help content file being associated with the operational state of the configurable subscriber station and in a file format that can be output through the subscriber interface of the configurable subscriber station; sending a content message including at least a portion of the help content file to said configurable subscriber station; and sending a control message to said configurable subscriber station that instructs the configurable subscriber station to output said at least a portion of the help content file contained in said content message through the subscriber interface.

TheFreeDictionary.com

Sponsor message: Receive 10,000 Bonus Miles. Apply for the American Express Free tools for surfers: Instant word lookup for your browser- Word of the Day NEW!- Help- Add the dictionary to favorites

by Farlex Free tools for webmasters: Linking to the Dictionary- Dictionary lookup box- Word of the Day NEW!- Script word lookup

Free:  Dictionary/thesaurus  Computing dictionary  Medical dictionary  Legal dictionary  Financial dictionary  Acronyms  Columbia encyclopedia  Wikipedia encyclopedia

Subscription:  Hutchinson encyclopedia

## multimedia

### Kodak 128MB MultiMedia Card

Find great prices on Kodak 128MB Multimedia Card at CNET Shopper.com, a comprehensive pricing guide that will help you find the latest tech products at great prices.

[www.cnet.com](http://www.cnet.com)

### Multimedia at CDW

Shop CDW.com for the latest desktops, notebooks, printers, electronics and more. Pay just \$9.99 for Ground Service shipping of any order up to 70 lbs. CDW - the right technology, right away.

[www.cdw.com](http://www.cdw.com)

### Study Graphic Design with the Pros

Careers in graphic design start at the Academy of Art University in San Francisco. Study with world-class instructors and learn skills you need to get a job. No portfolio needed.

[www.academyart.edu](http://www.academyart.edu)

Information in more than one form. It includes the use of text, audio, graphics, animation and full-motion video. Multimedia programs are typically games, encyclopedias and training courses on CD-ROM or DVD. However, any application with sound and/or video can be called a multimedia program. See rich media and multimedia file.

Computer Desktop Encyclopedia copyright ©1981-2005 by The Computer Language Company Inc. All Right reserved. THIS COPYRIGHTED DEFINITION IS FOR PERSONAL USE ONLY. All other reproduction is strictly prohibited without permission from the publisher

#### Some words with "multimedia" in the definition:

<u>802.11e</u>	<u>Matrix Math</u>	<u>MPEG</u>	<u>multimedia PC</u>	<u>Synchronized</u>
<u>AMO</u>	<u>eXtensions</u>	<u>Multimedia and</u>	<u>Multimedia Personal</u>	<u>Multimedia Integration</u>
<u>Andrew Message</u>	<u>Media Vision</u>	<u>Hypermedia</u>	<u>Computer</u>	<u>Language</u>
<u>System</u>	<u>MHEG</u>	<u>information coding</u>	<u>Ode</u>	<u>Tiger</u>
<u>International</u>	<u>MME</u>	<u>Expert Group</u>	<u>Real Time Streaming</u>	<u>Windows Media</u>
<u>Multimedia</u>		<u>multimedia file</u>	<u>Protocol</u>	
<u>Teleconferencing</u>		<u>Multimedia Integrated</u>		
<u>Consortium</u>		<u>Conferencing for</u>		
		<u>European</u>		
		<u>Researchers</u>		

[« Previous](#)

Computing Dictionary Browser

[Next »](#)

<u>multilayer optical disk</u>	<u>Multilink PPP</u>	<u>Multimedia and</u>	<u>Multimedia Extensions</u>
<u>multilayer perceptron</u>	<u>MultiLisp</u>	<u>Hypermedia information</u>	<u>multimedia file</u>
<u>multilayer switch</u>	<u>multilocation extension</u>	<u>coding Expert Group</u>	<u>Multimedia Integrated</u>
<u>multilevel optical disk</u>	<u>dialing</u>	<u>MultiMedia Card</u>	<u>Conferencing for European</u>
<u>multiline</u>	<u>multimastering</u>	<u>MultiMedia Compact Disc</u>	<u>Researchers</u>
	<u>MultiMate</u>	<u>multimedia conferencing</u>	<u>Multimedia Internet Mail</u>
		<u>MultiMedia Extension</u>	<u>Extensions</u>
			<u>Multimedia Messaging</u>
			<u>Service</u>

#### Full Dictionary Browser

<u>•multilocular</u>	<u>▪Multimagic square</u>	<u>•Multimedia and</u>	<u>•Multimedia Cable Network</u>
<u>•multilocular</u>	<u>•MULTIMAN</u>	<u>Hypermedia information</u>	<u>System Partners, Ltd.</u>
<u>•multilocular cyst</u>	<u>•Multiman Intermittent</u>	<u>coding Expert Group</u>	<u>(Cisco)</u>
<u>•Multilocus DNA</u>	<u>Cooling System</u>	<u>•Multimedia and</u>	<u>•Multimedia Cable Network</u>
<u>Fingerprinting</u>	<u>▪Multimap</u>	<u>Hypermedia information</u>	<u>Systems</u>

DOCUMENT- US 20030059009 A1  
IDENTIFIER:  
TITLE: Modular multi-media communication management system with context dependent multi-media help functionality

---

Pre-Grant Publication (PGPub) Document Number - PGNR (1):

20030059009

Pre-Grant Publication Document Identifier - DID (1):

US 20030059009 A1

Detail Description Paragraph - DETX (5):

[0027] The control unit 12 includes a multi-media communication service provider bay 14 that operatively couples one of a plurality of communication medium modules 16a-16d to the control unit 12. Each communication medium module 16a-16d is configured to interface with a service provider's multi-media communication medium 18a-18d. For purposes of illustration, communication module 16(a) may be a cable modem module for communicating over coaxial cable 36 with a multimedia communication service provider such as a local cable company, communication module 16(b) may be a wide area network radio for communication over a wireless spectrum channel 38 with a wide area wireless multi-media communication service provider such as an analog or digital cellular/PCS telephone service provider, communication module 16c may be a customer service unit (CSU) for communication over a T1 line 40 with a multi-media communication provider such as a local telephone service provider, and communication module 16d may be an optical modem for communication over a fiber channel 44 with a fiber optic multimedia communication service provider. It should be appreciated that the examples of communication modules 16a-16d are for illustrative purposes only and it is recognized that multi-media communication services may be provided by other service providers utilizing other communication technologies such as satellite RF or other. For purposes of this invention, a communication module 16 includes circuitry for interfacing between the control unit 12 and a selected multi-media communication service provider. The control unit 12 further comprises a circuit switched provider bay 24 which operatively couples one or more public switched telephone network (PSTN) channels 42.

Detail Description Paragraph - DETX (35):

[0057] The session control server 230 operates as an event driven state machine. The state machine includes multiple processing states and when in each state, the session control server 230 recognizes various events. In response to each recognized event, the session control server 230 executes processing steps and may include transitioning to another state. The session control server 230 may navigate the state machine by transitioning between states independently for each local communication device 20 in response to event signals. During operation of the state machine for a particular local communication device 20, the session control server 230 receives event signals from each of the voice server 218, the messaging client 228, the session control server 230, the packet switched voice gateway 232, the multimedia communication service provider medium 18, and the local communication device 20. Exemplary states, processing steps, and events are discussed herein with respect to FIGS. 9a-9e.

Detail Description Paragraph - DETX (60):

[0082] The controller 180 operates a wide area network communication space station client application 198. When the wide area network communication device 88 is coupled to the platform unit 52, the wide area network communication space station application 198 provides for displaying multi-media communication management information under control the platform

unit 52 and provides for multimedia communication directly between the platform unit and the wide area network service provider medium.

**Detail Description Paragraph - DETX (71):**

[0093] The table of FIG. 9a represents a start up state. In the start up state, the session control server 230 is waiting for an open session request from a new communication space station 24 on a predetermined port. When a communication space station 24 has just operatively coupled to the local area network 22, obtained a network address from the network address server 220, and is ready to operate, the management client 115 (FIG. 4) sends an open session request to a predetermined network address (matching that of the session control server 230) on the predetermined port. Event 300 represents receipt of an open session request from the subscriber station 24. In response to event 300, the session control server 230 performs various steps to initiate management control of multimedia communications of the communication space station 24 that include: i) establishing a session in response to the open session request; ii) sending control messages to the communication space station 24 that, when executed by the management client 115, providing for the communication space station 24 to detect its subscriber interface configuration (e.g. whether the communication space station 24 includes a display screen and what capabilities such as vide capabilities and graphic resolution capabilities the display screen may have) and to report its subscriber interface configuration back to the session control server 230; iii) obtaining the subscriber interface configuration; iv) providing main menu display content messages and main menu layout control messages to the communication space station 24 that are compatible with the particular display (if any) that is included in the subscriber interface reported by the communication space station 24; and transitioning to a main menu state as represented by FIG. 9b.

**Claims Text - CLTX (2):**

1. A multi-media communication management system for operation with a plurality of subscriber stations, at least one of which is a configurable subscriber station that includes a subscriber interface selected from a subscriber voice interface, a graphic display and a subscriber voice interface, a high resolution full motion display and a subscriber voice interface, the multi-media communication management system comprising: a network communication circuit for multi-media communication with said plurality of subscriber stations; a session control circuit for establishing a communication session with each subscriber station through the network communication circuit comprising: a subscriber communication state manager for communicating control messages to a configurable subscriber station for controlling operational states of said configurable subscriber station and for receiving a help function request from said configurable subscriber station; means for identifying the subscriber interface of said configurable subscriber station; and means, responsive to said help function request, for providing help information to said configurable subscriber station that is related to the operational state of said subscriber station and is in a multimedia format compliant with the subscriber interface of the configurable subscriber station.

**Claims Text - CLTX (10):**

9. A multi-media communication management system for operation with a plurality of subscriber stations, each of which includes a help button and a multimedia subscriber interface, the multi-media communication management system comprising: a network communication circuit for multi-media communication with said plurality of subscriber stations; a session control circuit for establishing a communication session with each subscriber station through the network communication circuit comprising: a subscriber communication state manager for communicating control messages to each subscriber station for controlling the operational state of each subscriber station independent of each other subscriber station and for receiving an indication of subscriber activation of the help button on an identified subscriber station; means for providing multimedia help information to the identified subscriber station that is related to the operational state of the identified subscriber station in response to a first receipt of the indication of subscriber activation of the help button on the identified subscriber station; means for sending a control message to the identified subscriber station that instructs the identified subscriber station to establish a communication session with a help station in response to a

second receipt of the indication of subscriber activation of the help button on the identified subscriber station.

**Claims Text - CLTX (12) :**

11. A method of providing context dependent help services to a configurable subscriber station that includes a subscriber interface selected from a subscriber voice interface, a graphic display and subscriber voice interface, a high resolution full motion display and subscriber voice interface, the method comprising: communicating control messages to the configurable subscriber station over a network communication circuit for controlling operational states of the configurable subscriber station; receiving a help function request from the configurable subscriber station over the network communication circuit; identifying the subscriber interface of the configurable subscriber station; providing, in response to a help function request, help information to the configurable subscriber station that is related to the operational state of the configurable subscriber station and is in a multimedia format compliant with the subscriber interface of the configurable subscriber station.

**Claims Text - CLTX (20) :**

19. A method of providing help services to a plurality of subscriber stations, each of which includes a help button and a multimedia subscriber interface, the method comprising: communicating control messages to each subscriber station for controlling the operational state of each subscriber station independent of each other subscriber stations; receiving a first and a second indication of subscriber activation of the help button on an identified subscriber station; providing multimedia help information to the identified subscriber station that is related to the operational state of the identified subscriber station in response to a first receipt of the indication of subscriber activation of the help button on the identified subscriber station; and sending a control message to the identified subscriber station that instructs the identified subscriber station to establish a communication session with a help station in response to a second receipt of the indication of subscriber activation of the help button on the identified subscriber station.

**Family list**

29 family members for:

**US2003059009**

Derived from 27 applications.

[Back to US2003059009](#)

- 1 Multi-media communication management system with subscriber messaging integration services  
Publication info: US6671356 B2 - 2003-12-30  
US2003059003 A1 - 2003-03-27
- 2 Teledata space and docking station with modular and integrated display  
Publication info: US6912283 B2 - 2005-06-28  
US2003059038 A1 - 2003-03-27
- 3 Multi-media communication management system with enhanced video conference services  
Publication info: US2003058805 A1 - 2003-03-27
- 4 Multi-media communication system with advanced conference call management  
Publication info: US2003058806 A1 - 2003-03-27
- 5 Communication management system with lines status notification and single button dialing for key switch emulation  
Publication info: US2003058844 A1 - 2003-03-27
- 6 Multi-media communication management system with multicast messaging capabilities  
Publication info: US2003058858 A1 - 2003-03-27
- 7 Event driven multi-media communication management system  
Publication info: US2003059001 A1 - 2003-03-27
- 8 Multi-media communication management system for routing incoming calls to a subscriber device that is served by a subscriber station  
Publication info: US2003059002 A1 - 2003-03-27
- 9 Multi-media communication management system with dynamic bypass routing of real time streaming media  
Publication info: US2003059005 A1 - 2003-03-27
- 10 Modular multi-media communication management system with context dependent multi-media help functionality  
Publication info: US2003059009 A1 - 2003-03-27
- 11 Multi-media communication management system with caller managed hold system  
Publication info: US2003059014 A1 - 2003-03-27
- 12 Multi-media communication management system supporting selectable appliance modules  
Publication info: US2003059020 A1 - 2003-03-27
- 13 Multi-media communication management system with selectable call routing  
Publication info: US2003059021 A1 - 2003-03-27
- 14 Multi-media communication downloading  
Publication info: US2003059022 A1 - 2003-03-27
- 15 Modular multi-media communication management system  
Publication info: US2003059024 A1 - 2003-03-27
- 16 Multi-media communication management system supporting selectable appliance modules  
Publication info: US2003059025 A1 - 2003-03-27
- 17 Multi-media communication system having programmable speed dial control indicia  
Publication info: US2003059033 A1 - 2003-03-27
- 18 Multi-media communication subscriber station having battery powered backup  
Publication info: US2003059035 A1 - 2003-03-27
- 19 Modular multi-media communication management system with an integrated service for wide area network wireless telephones  
Publication info: US2003059039 A1 - 2003-03-27
- 20 Multi-media communication management system with automated paging  
Publication info: US2003051622 A1 - 2003-03-27

---

Data supplied from the **esp@cenet** database - Worldwide

**Family list**

29 family members for:

**US2003059009**

Derived from 27 applications.

[Back to US2003059009](#)

- 21 Flexible-link multi-media communication  
Publication info: US2003137959 A1 - 2003-07-24
- 22 Multi-media communication management system having graphical user interface conference session management  
Publication info: US2004004942 A1 - 2004-01-08
- 23 Multimedia communication management system with external system management  
Publication info: US2004015574 A1 - 2004-01-22
- 24 Communication management system with line status notification for key switch emulation  
Publication info: US2004062264 A1 - 2004-04-01
- 25 Multimedia communication management  
Publication info: US2004068648 A1 - 2004-04-08
- 26 Multimedia communication management system with line status notification for key switch emulation  
Publication info: US2004076157 A1 - 2004-04-22
- 27 Multimedia communication management system with line status notification for key switch emulation  
Publication info: US20041114577 A1 - 2004-06-17

---

Data supplied from the **esp@cenet** database - Worldwide